

Code: 2298-60209
Ref. No.: 3720-0001

JAPANESE PATENT OFFICE

PATENT JOURNAL

KOKAI PATENT APPLICATION NO. HEI 4[1992]-48768

Int. Cl.⁵: H 01 L 25/065
21/60
23/36
25/07
25/18
H 01 L 25/08
25/36

Sequence Nos. for Office Use: Q 6918-4M
7638-4M
7220-4M

Application No.: Hei 2[1990]-155391

Application Date: June 15, 1990

Publication Date: February 18, 1992

No. of Claims: 2 (Total of 4 pages)

Examination Request: Not requested

SEMICONDUCTOR DEVICE AND ITS MANUFACTURING METHOD

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[There are no amendments to this patent.]

Claims

1. A semiconductor device characterized by the fact that it is equipped with a package (10) having a concave part (10a), a first semiconductor element (13) housed and joined in the concave part (10a) of said package (10), a second semiconductor element (16) joined with said first semiconductor element (13) via a solder bump (15), and a copper foil (17) that is joined with the back face of said second semiconductor element (16) and the package (10) and that dissipates the heat, which is generated from the second semiconductor element (16), to the package (10).

2. A manufacturing method of the semiconductor device, characterized by the fact that it includes a process that houses a first semiconductor device (13) in a concave part (10a) of a package (10) having said concave part (10a), joins it with an AuSi eutectic alloy, and applies a wiring between an electrode of said first semiconductor element (13) and a lead (12) of the package (10) by a wire (14), as well as a process that mounts the first semiconductor element (13) and the second semiconductor element (16) so that solder bumps (15', 15'') respectively installed at the first and second semiconductor face each other, mounts a copper foil (17) in contact with the back face of the

second semiconductor element (16) and a stepped part (10b) of the package (10) via a solder paste, and joins the back face of the second semiconductor device (16) and the stepped part (10b) of the package (10) with a solder by heating, as well as joins the first semiconductor element (13) and the second semiconductor element (16) by the solder bumps (15', 15").

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